

~~CLAIMS:~~

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WHAT IS CLAIMED IS

1. A component placement machine for placing components on a printed circuit board, comprising:
- a transport device for transporting printed circuit boards in an X-direction,
  - on either side of the transport device, respectively, a first and a second feeder area, in each of which there is at least one feeder with components,
  - a Y-slide, which is drivable in the X-direction, and
  - a placement head on said Y-slide, which placement head is drivable in a Y-direction, characterized in that the Y-slide is provided with at least two placement heads which can be independently driven in a Y-direction.

A component placement machine as claimed in claim 1, characterized in that a number of Y-slides are present, which are independently drivable in the X-direction, each Y-slide being provided with at least two placement heads.

3. A method of placing components on a printed circuit board by means of a component placement machine as claimed in claim 1, characterized in that
- in a first period of time, a first placement head moves to a desired X-Y position above a first feeder and, subsequently, picks up a component from the first feeder, a second placement head moves along the Y-slide to a desired Y-position so as to prepare for the
  - placement of a previously picked-up component on the printed circuit board,
  - in a second period of time following the first period of time, the second placement head moves to a desired X-Y position above the printed circuit board and, subsequently, places the component on the printed circuit board,
  - in a third period of time following the second period of time, the second placement head moves to a desired X-Y position above a second feeder and, subsequently, picks up a component from the second feeder, the first placement head moves along the Y-slide to a desired Y-position so as to prepare for the placement on the printed circuit board of the component picked up in the first period of time, and

- in a fourth period of time following the third period of time, the first placement head moves to a desired X-Y position above the printed circuit board and, subsequently, places the component on the printed circuit board.

5 4. A method of placing components on a printed circuit board by means of a component placement machine as claimed in claim 2, characterized in that

- in a first period of time, a first series of placement heads moves to a desired X-Y position above a first feeder and, subsequently, simultaneously picks up components from the first feeder, a second series of placement heads moves along the Y-slide to a desired Y-position so as to prepare for the placement on the printed circuit board of previously picked-up components,

- in a second period of time following the first period of time, the second series of placement heads moves to a desired X-Y position above the printed circuit board and, subsequently, places the components simultaneously on the printed circuit board,

- 15 - in a third period of time following the second period of time, the second series of placement heads moves to a desired X-Y position above a second feeder and, subsequently, simultaneously picks up components from the second feeder, the first series of placement heads moves along the Y-slide to a desired Y-position so as to prepare for the placement on the printed circuit board of the components picked up in the first period of time, and

- 20 - in a fourth period of time following the third period of time, the first series of placement heads moves to a desired X-Y position above the printed circuit board and, subsequently, places the components simultaneously on the printed circuit board.